SONY®

UPGRADE KIT FOR MIRROR MOTHER VTR

# MMUK56

Please add and replace your MMV-5010V operation manual with this contents.

SPRINTER

# OPERATION MANUAL

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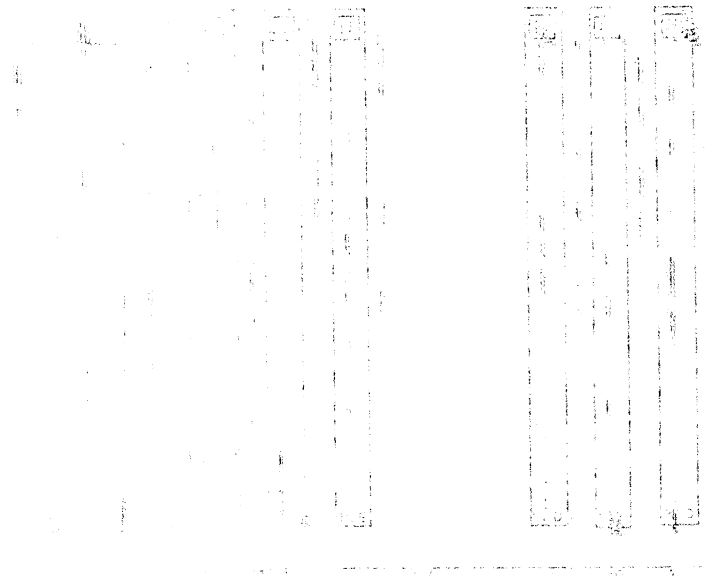
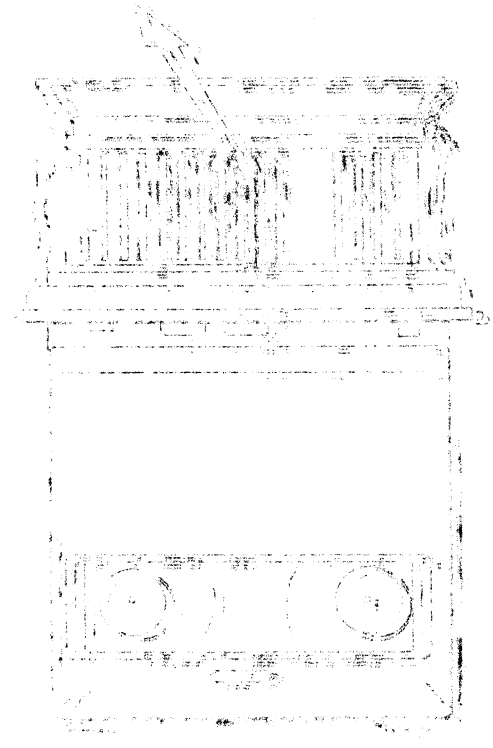
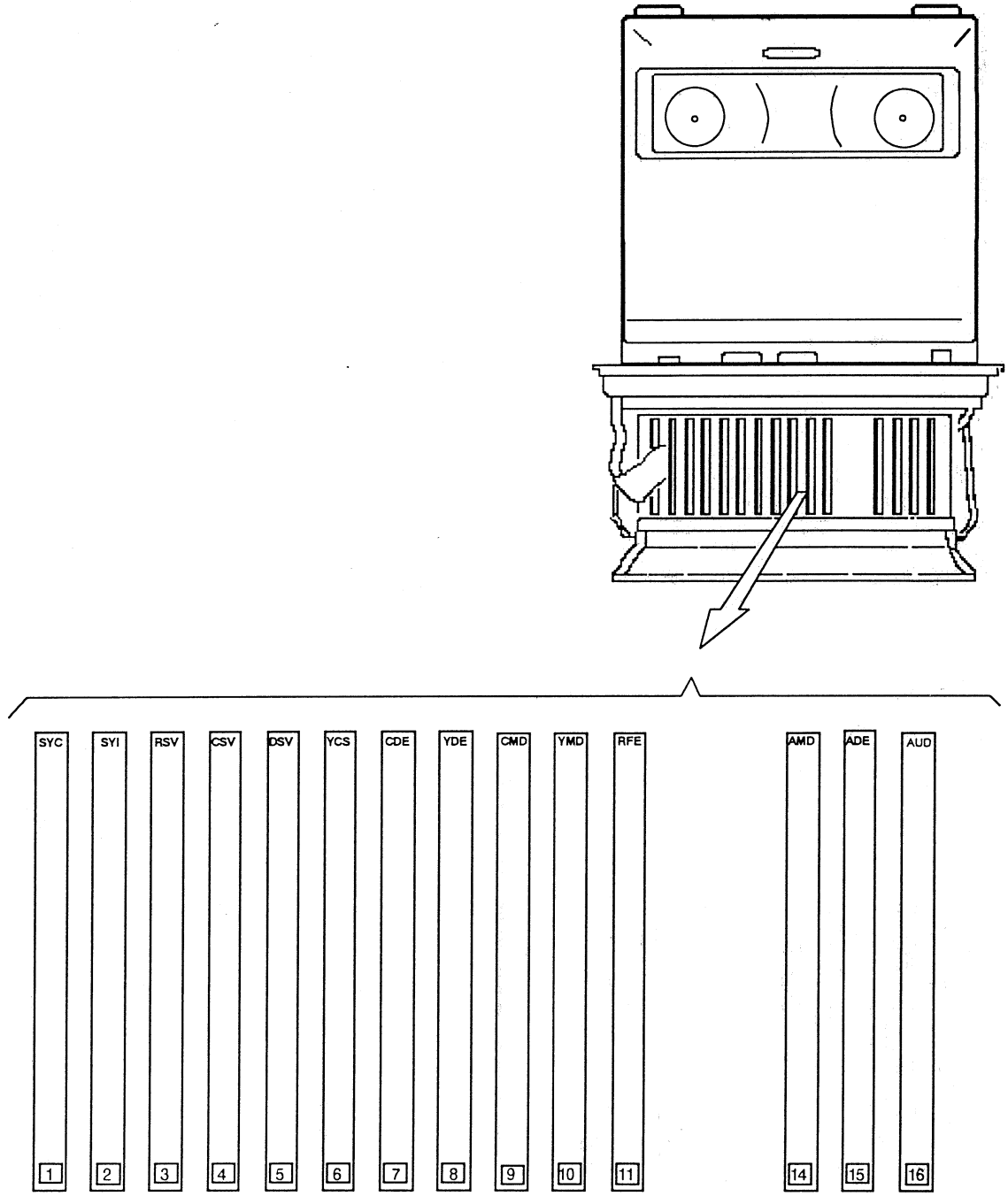
MADE IN JAPAN

Sony Magnescale Inc.

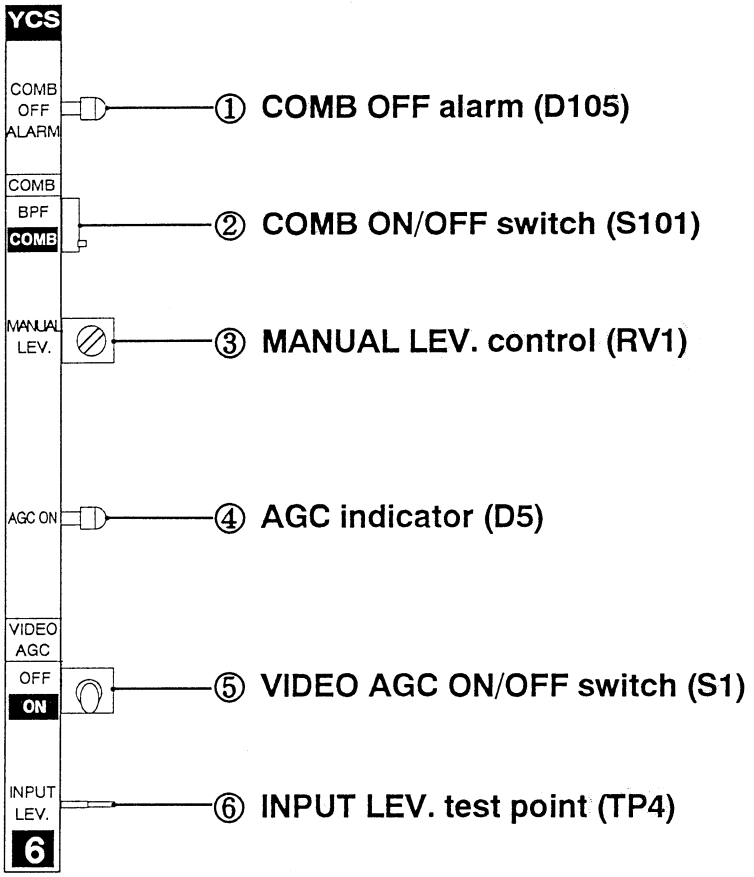




## 6-4-4. Parts Identification



## YCS board [6] (Y/C separator)




**① COMB OFF alarm (D105)**

Illuminates when the COMB ON/OFF switch is set to OFF. Normally this alarm is gone off.

**② COMB ON/OFF switch (S101)**

**ON (lower position):** The Y/C separator functions as a comb filter.

**OFF (upper position):** The comb filter is deactivated. Used mainly for adjustment.

Set the switch to ON for normal operation.

**③ MANU. LEV. control (RV1)**

This control adjusts the input level when the VIDEO AGC is set to OFF.

Adjust the level of TP4 to 1 Vp-p for normal operation.

**④ AGC indicator (D5)**

Illuminates when the AGC circuit is activated.

**⑤ VIDEO AGC ON/OFF switch (S1)**

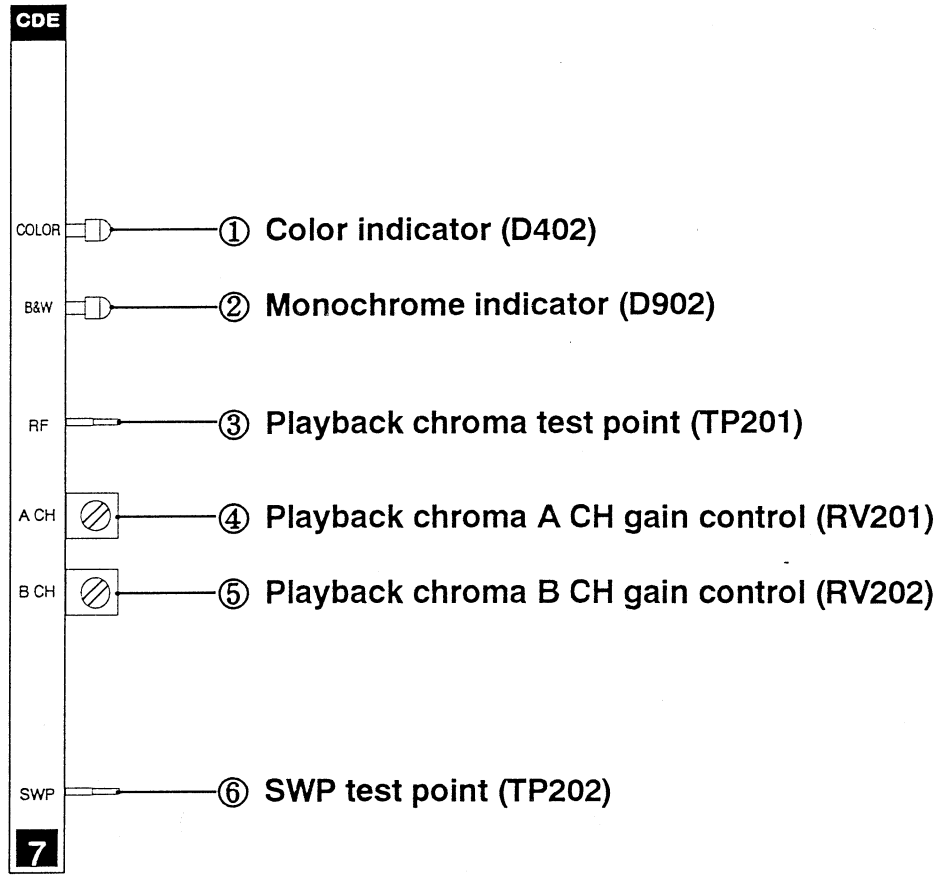
**ON (lower position):** The AGC circuit is activated and the video level is automatically adjusted.

**OFF (upper position):** The AGC circuit is deactivated.

**⑥ INPUT LEV. test point (TP4)**

The video input signal is monitored here. The reference level is 1 Vp-p.

## CDE board [7] (Chroma demodulator)




**① Color indicator (D402)**

In the PLAY mode, this indicator illuminates when the video signal of the mirror mother tape is a color signal.

In case other than the PLAY mode, this indicator illuminates when the input video signal is a color signal.

**② Monochrome indicator (D902)**

In the PLAY mode, this indicator illuminates when the video signal of the mirror mother tape is a monochrome signal.

In case other than the PLAY mode, this indicator illuminates when the input video signal is a monochrome signal.

**③ Playback chroma test point (TP201)**

The playback chroma RF signal is sent out from here. The signal is sent out only during PLAY mode.

**④ Playback chroma A CH gain control (RV201)**

This controladjusts the chroma RF playback gain of the channel A head.

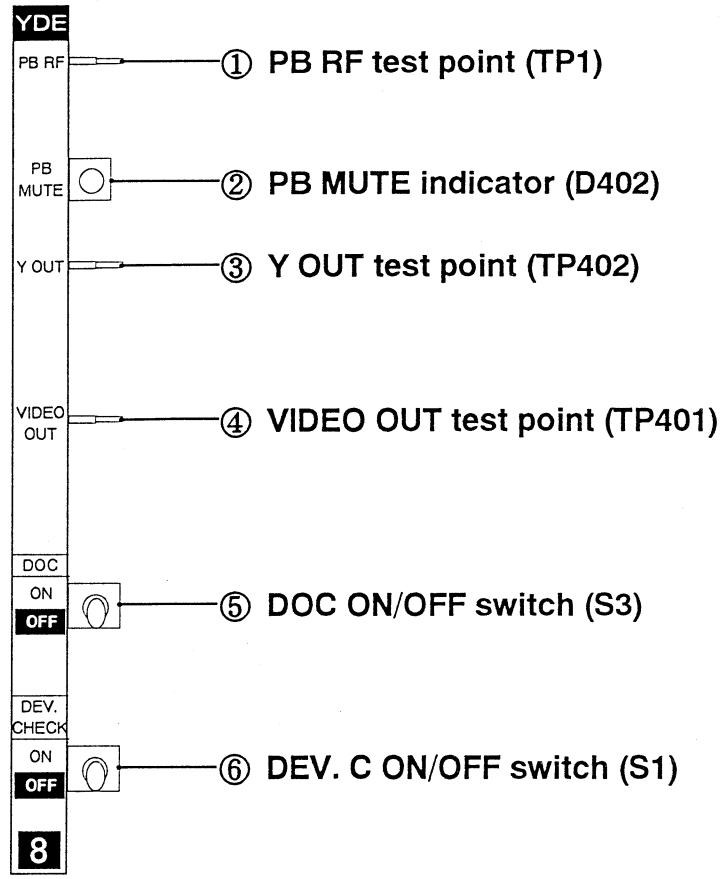
**⑤ Playback chroma B CH gain control (RV202)**

This controladjusts the chroma RF playback gain of the channel B head.

**⑥ SWP test point (TP202)**

The pulse synchronized with the drum rotation is sent out from here. Corresponded to low=channel A, and high=channel B.

## YDE board [8] (Y demodulator)




### ① PB RF test point (TP1)

The playback RF signal is sent out from here.

### ② PB MUTE indicator (D402)

This indicator illuminates during muting the playback.

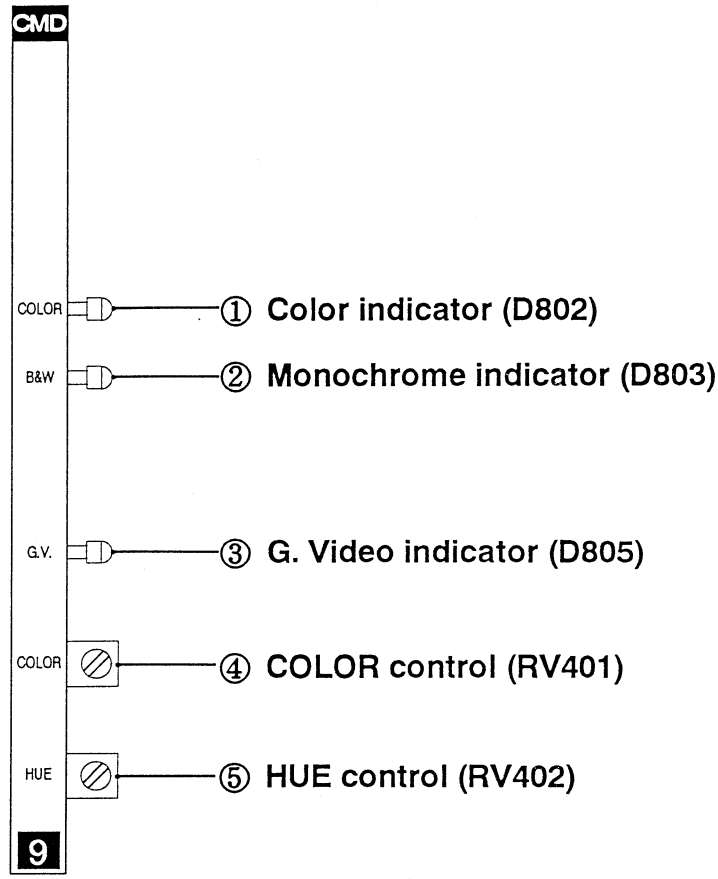
### ③ Y OUT test point (TP402)

The PB Y(playback luminance) signal is sent out from here.

### ④ VIDEO OUT test point (TP401)

The playback video signal is sent out from here.

## CMD board [9] (Chroma modulator)




### ① Color indicator (D802)

This indicator illuminates when the input video signal is a color signal.

### ② Monochrome indicator (D803)

This indicator illuminates when the input video signal is a monochrome signal.

### ③ G. Video indicator (D805)

This indicator illuminates in the gray video recording mode.

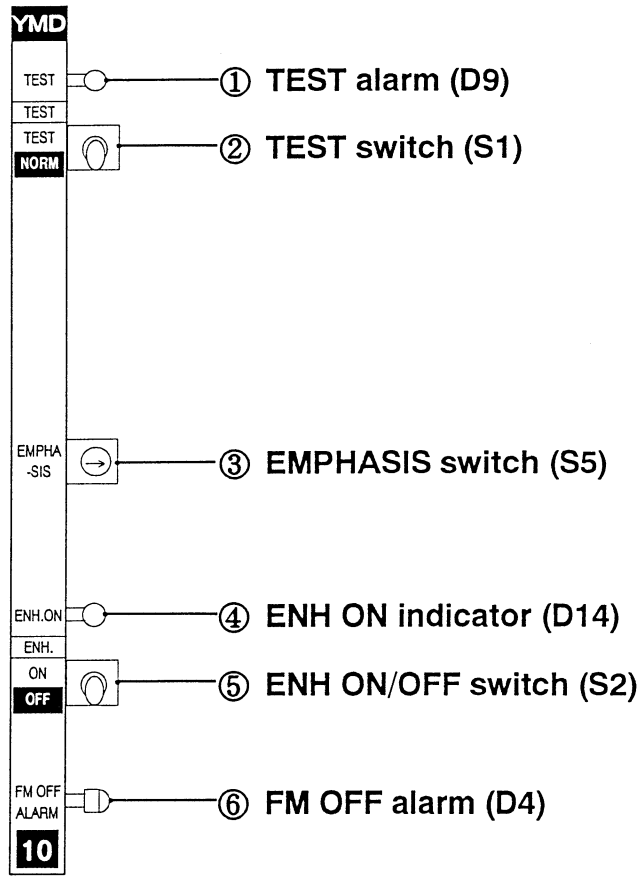
### ④ COLOR control (RV401)

This control adjusts the saturation level of the color signal.

### ⑤ HUE control (RV402)

This control adjusts the hue of the color signal.

## YMD board [10] (Y modulator)




### ① TEST alarm (D9)

Illuminates when the ②TEST switch (S1) is set to TEST position and the RFE (S1) to EXT position. A normal recording is impossible during illuminating.

### ② TEST switch (S1)

**TEST (upper position):** The 3.4 MHz signal is oscillated when the input signal is sent to the VIDEO IN connector. This switch is used for adjustment.

**NOR (lower position):** The VIDEO signal is recorded.

Set the switch to the lower position (NOR) for normal operation.

③ **EMPHASIS (emphasis) switch (S5)**

This switch enables to increase the emphasis level of the video depending on the switch setting (1 to 4 positions). Thus, the emphasis level is changed according to the characteristic of the playback machine. Set the switch to "2" for normal operation.

④ **ENH (enhance) ON indicator (D14)**

This indicator illuminates when ⑤ENH ON/OFF switch is set to ON.

⑤ **ENH ON/OFF switch (S2)**

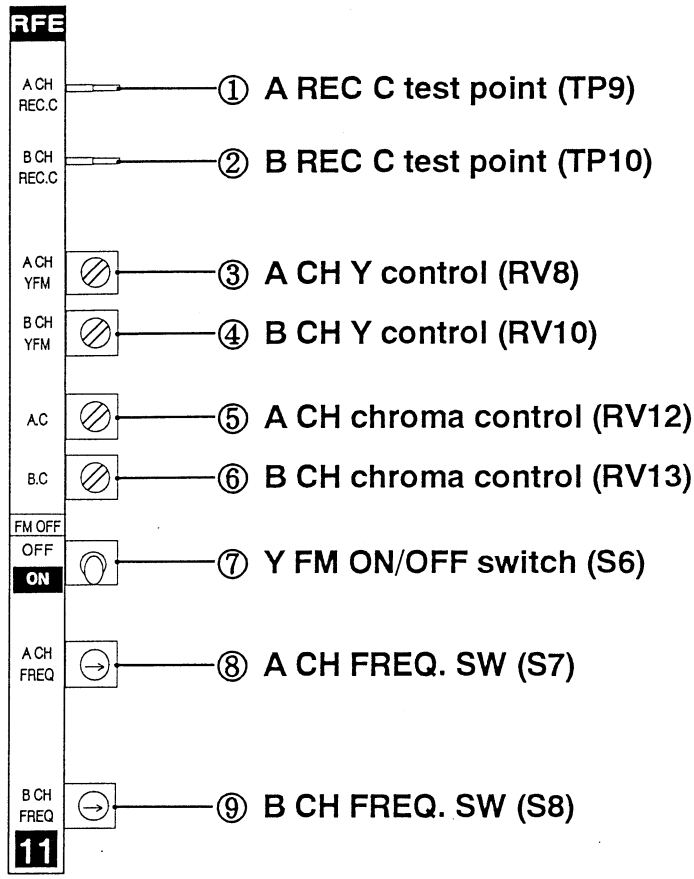
**ON (upper position):** The edge of the video is emphasized to make a sharp image.

**OFF (lower position):** A flat image without emphasis is obtained.

⑥ **FM OFF alarm (D4)**

Illuminates when the RFE/FM OFF switch (S6) is set to OFF. A normal recording is impossible during illuminating.

## RFE board [11] (Video recording current frequency equalizer)




### ① A REC C test point (TP9)

The signal of the recording current which flows through the channel A video head can be monitored here.

The output signal level will be 1 Vp-p when a recording current of 100 mAp-p is flowing through the head.

### ② B REC C test point (TP10)

The signal of the recording current which flows through the channel B video head can be monitored here.

### ③ to ⑥ REC CURR (recording current) adjustment control

Do not touch the controls ③ to ⑥ since they affect the performance of the unit.

#### ③ A CH Y control (RV8)

This control adjusts the Y signal recording current of channel A.

#### ④ B CH Y control (RV10)

This control adjusts the Y signal recording current of channel B.

#### ⑤ A CH chroma control (RV12)

This control adjusts the chroma signal recording current of channel A.

#### ⑥ B CH chroma control (RV13)

This control adjusts the chroma signal recording current of channel B.

### ⑦ Y FM ON/OFF switch (S6)

**ON (lower position):** Y+C signal flows through the video head.

**OFF (upper position):** Y signal is not selected and only C signal flows through the video head.

This switch is used for adjustment and is set to ON for normal operation.

**⑧ A CH FREQ. switch (S7)**

**⑨ B CH FREQ. switch (S8)**

Changes the frequency characteristic of the signal to be recorded.

Following pictures can be obtained by switch setting.

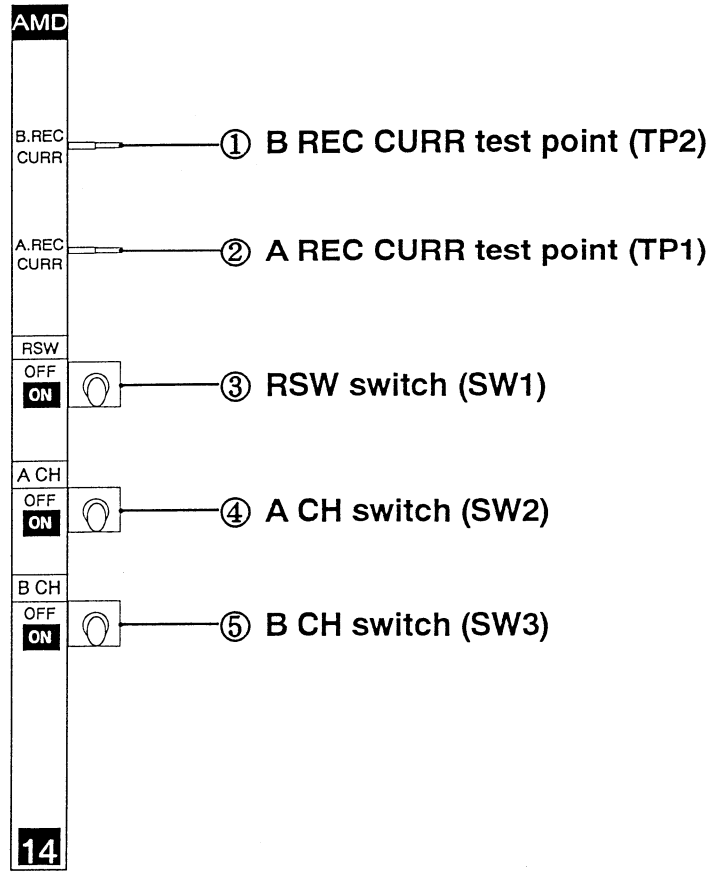
**2:** flat

**3 and 4:** sharp

**1:** soft

This switch is set to "2" for normal operation. ⑧ (S7) corresponds to channel A and ⑨ (S8) to channel B. However, set both channels to the same position for usage.

## AMD board [14] (Audio FM signal modulator)




**① B REC CURR (channel B recording current) test point (TP2)**

The signal of the recording current which flows through the channel B hi-fi audio head can be monitored here. For example, the output signal voltage will be 0.4 Vp-p when a recording current of 80 mAp-p is flowing through the head since connector voltage with 5É∂ resistance is monitored.

**② A REC CURR (channel A recording current) test point (TP1)**

The signal of the recording current which flows through the channel A hi-fi audio head can be monitored here.

### ③ RSW (record current switching) switch (SW1)

This switch turns on or off the recording switching of channel A and B video heads.
Set the switch to the lower position (ON) for normal operation. In the upper position (OFF), the recording current constantly flows through both heads in record mode.

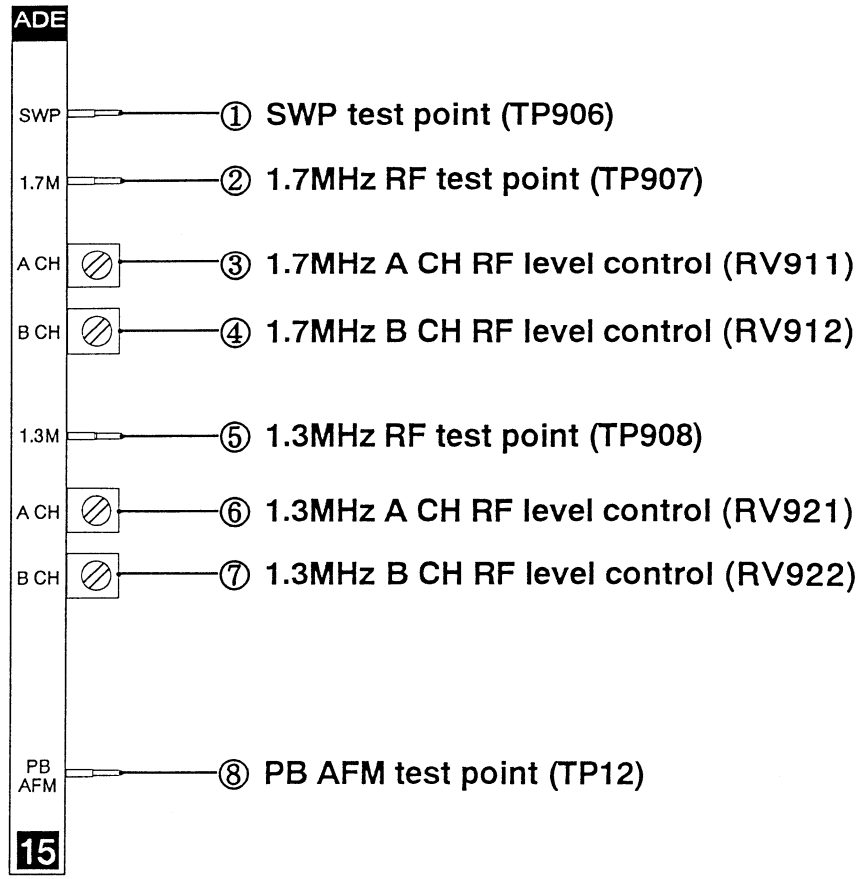
### ④ A CH (channel A) switch (SW2)

This switch turns on or off the recording current flowing through the channel A video head. Set the switch to the lower position (ON) for normal operation.
This switch has no effect when the RSW switch ③ is set to OFF. (The recording current flows constantly.)

### ⑤ B CH (channel B) switch (SW3)

This switch turns on or off the recording current flowing through the channel B video head.
Set the switch to the lower position (ON) for normal operation.
This switch has no effect when the RSW switch ③ is set to OFF. (The recording current flows constantly.)

## ADE board [15] (Audio FM signal demodulator)




**① SWP (Switching Pulse) test point (TP906)**

The switching pulse synchronized with drum rotation is output.

**② 1.7MHz RF test point (TP907)**

PB AFM signal (1.7MHz) is output.

**③ 1.7MHz A CH RF level control (RV911)**

This control adjusts the PB RF level for A channel (1.7MHz).

**④ 1.7MHz B CH RF level control (RV912)**

This control adjusts the PB RF level for B channel (1.7MHz).

**⑤ 1.3MHz RF test point (TP908)**

PB AFM signal (1.3MHz) is output.

**⑥ 1.3MHz A CH RF level control (RV921)**

This control adjusts the PB RF level for A channel (1.3MHz).

**⑦ 1.3MHz B CH RF level control (RV922)**

This control adjusts the PB RF level for B channel (1.3MHz).

**⑧ PB AFM test point (TP12)**

PB audio signal is output.